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California: Changing the Nation's Car Culture

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Perhaps no other population in the world has embraced the motor vehicle as passionately – nor is any other state defined as much by the car – as California. Freeways and an expansive lifestyle of suburbia became synonymous with the Golden State and was copied across the country. And, most likely, the way America looks at the automobile may soon change because of California.

California is the eighth largest economy in the world and the third largest consumer of transportation fuels in the world. The state's nearly 31 million registered vehicles annually consume about 16 billion gallons of gasoline and 4 billion gallons of diesel. The California market is just too big to ignore: Californians buy 10 percent of all new cars sold annually in the U.S.

Although cars give Californians the individual freedom and mobility its citizens crave, this freedom has come at a high price, both to the environment and consumer pocketbooks. Currently, transportation produces 39 percent of California's total greenhouse gas emissions, the major cause of global climate change. California's programs to combat air pollution from automobiles are well known. By 2020, the state expects to lower its greenhouse gas emissions to 1990 levels with an additional reduction of 80 percent by 2050.

California's energy policy identifies energy efficiency, renewable energy and energy diversity as the state's major priorities to meet growing energy demand. For transportation, this means accelerating improvements in vehicle fuel economy and new vehicle technologies, introducing alternative transportation fuels, and reducing vehicle miles traveled through more mass transit and improved land-use and transportation planning.

The most cost-effective way to cut emissions from cars and trucks is to increase the fuel efficiency of vehicles, a point California has repeatedly made at the national level. California has adopted a standard that would significantly cut greenhouse gases from new cars sold in the state and have the added benefit of increasing fuel economy in the process. The federal Clean Air Act allows states to set their own emission standards, providing they have a waiver to do so from the U.S. Environmental Protection Agency. The Bush administration refused the waiver; however, the Obama administration has directed the USEPA to strongly reconsider granting the waiver. If California receives the waiver, 15 other states are ready to enact the same standard. California officials already are considering new regulations that would further reduce greenhouse gas emissions and improve fuel economy in new vehicles.

State officials are equally determined to create a more diverse and efficient transportation fuel system. Fuels such as electricity, ethanol from non-food sources, biodiesel, renewable diesel, natural gas, propane and hydrogen – and the vehicles that can use these fuels – will be essential to California's goal of increasing non-petroleum fuels to 20 percent by 2020 and to 30 percent by 2030.

Californians are open to changes that will help to meet these goals. Through 2007, the last year for which statistics are available, they had purchased nearly 244,000 hybrid automobiles, nearly half of all those sold in the country – and an increase of 167 percent from 2005. They drive 340,000 flexible-fuel vehicles, cars or trucks that can operate on gasoline or E-85, an 85 percent ethanol fuel. There are more than 37,000 natural gas and propane vehicles on the state's roads and highways.

California officials have set in motion a number of programs that will change the transportation landscape. In 2005, the California Energy Commission recommended making plug-in-hybrid vehicles a major component of California's future fleet and created the Plug-in Hybrid Vehicle Research Center at the University of California, Davis.

The California Air Resources Board's Zero Emission Vehicle mandate will require automakers to produce thousands of hydrogen fuel cell, plug-in hybrid-electric, and battery-electric vehicles for sale in the state within the next five years. This will require public and private investments in the development of new fueling and electric charging stations.

Gov. Arnold Schwarzenegger's "Hydrogen Highway Blueprint Plan" establishes a network of hydrogen fueling stations throughout California. The state is helping to commercialize this 21st-century technology through the California Fuel Cell Partnership; a unique collaborative of government agencies, fuel cell technology companies, auto manufacturers and energy companies.

The state also is developing the first Low Carbon Fuel Standard, changing the composition of fuel sold in California. By lowering the allowable carbon content in fuel, the state hopes to stimulate private investment into new fuels and vehicle technologies.

And California is providing nearly $200 million annually in incentives to develop new and innovative fuels and vehicle technologies, provide consumers with non-petroleum fuel choices and support in-state production of non-petroleum fuels and advanced vehicle technologies.

California is working with industry and others to reduce greenhouse gas emissions, protect the environment and secure the diversified fuel supply necessary to meet the state's transportation needs Decisions made today in the Golden State will drive transportation fuel and vehicle choices for the nation – maybe the world – in decades to come.

For more information go to the California Energy Commission Web site at http://www.energy.ca.gov.

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